CLAIMS

What is claimed is:

1.   A system for monitoring cluster memberships within a clustered computer network, comprising:

at least one node;

a membership monitor entity located on the at least one of each node.

2.   The system of claim 1, further comprising at least one node data entry on each node.

3.   The system of claim 2, wherein the node data entry further comprises a node id entry, a node type entry and a master priority value entry.

4.   The system of claim 1, further comprising a high resolution timer located on each node.

5.   The system of claim 1, further comprising a log for logging.

6.   The system of claim 1, further comprising a repository for storing cluster configuration data.

7.   The system of claim 1, further comprising a hold off timer.

8.   A method for joining a cluster with a cluster membership monitor within a clustered computer network, comprising the steps of:

starting a local cluster membership monitor entity on a node when it boots;

establishing contact with peer cluster membership monitor entities; and

wherein if peers are found a consensus protocol is performed.

9.   The method of claim 8, further comprising the step of determining if a master node exists, wherein if a master exists the node joins the cluster.

10.   The method of claim 9, further comprising the step of obtaining configuration data from a master cluster membership monitor entity located on the master node.

11.   The method of claim 10, further comprising the step of logging in a local system log of the master node a cluster joint event.

12.   A method for monitoring the viability of cluster members comprising the steps of

        providing a heartbeat by a master node; and

wherein if the heartbeat is within a peer node time-out period, the peer node responds, otherwise a cluster reformation occurs.

13.   The method of claim 12, further comprising the steps of

        verifying that each peer node has responded to the heartbeat; and

wherein if all nodes listed in a master list of cluster members have responded, another heartbeat can be provided, and wherein otherwise a node not responding is removed from the list of cluster members and a cluster change request is made.

14.   The method of claim 13, wherein the cluster change request further comprises notifying a cluster coordination function.

15.   The method of claim 12, wherein the cluster reformation further comprises the steps of:

        verifying if cluster reformation has already been initiated; and

        wherein if cluster reformation has not been initiated, cluster reformation is initiated;

the highest priority node becomes the master node; and

the master heartbeat can be provided.